

W. Duncan

REPORT

OF THE

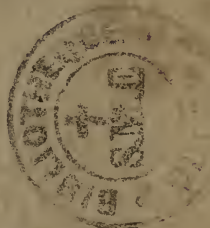
COMMITTEE ON INLAND NAVIGATION

AND

INTERNAL IMPROVEMENT,

RELATIVE TO THE FURTHER EXTENSION OF THE
PENNSYLVANIA CANAL, ACCOMPANIED WITH
A BILL.

MR. LEHMAN, CHAIRMAN.

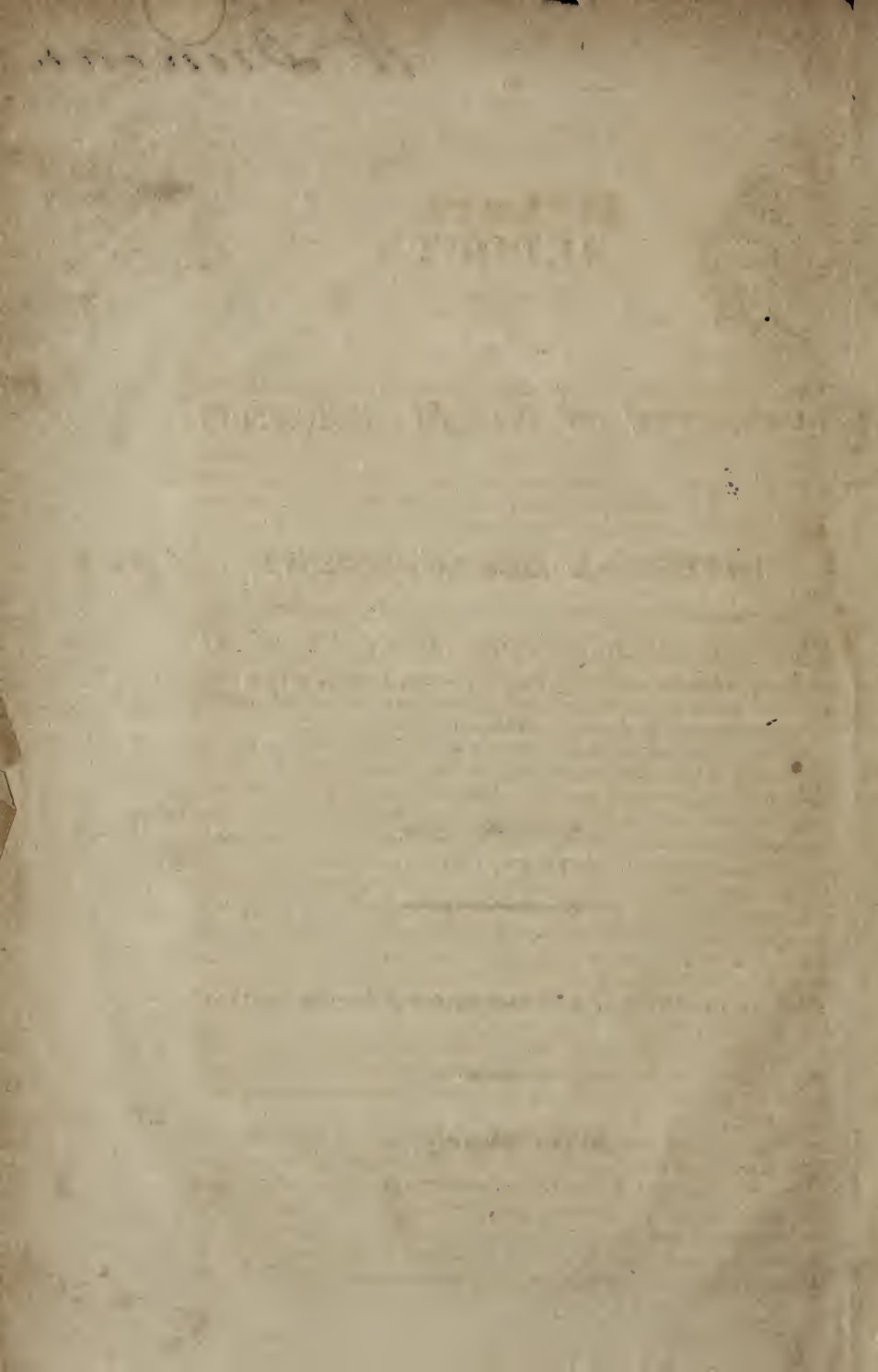


Read in the House of Representatives, February 28, 1827.

Harrisburg:

PRINTED BY J. S. WIESTING.

1827.



386
P341
7-15-18

Report.

Mr. Lehman, from the committee on inland navigation and internal improvement, to whom were referred so much of the Governor's message as relates to the further prosecution of the Pennsylvania canal, and sundry petitions relative to the same subject, and the reports of the canal commissioners, and of the engineers employed by the state, and also a resolution relating to the improvement of the Delaware river, made

REPORT :

That, impressed with the vital importance of completing, without delay, the works of internal improvement, commenced by the patriotism and wisdom of the last legislature, they report a bill, requiring the board of canal commissioners to extend the Pennsylvania canal to the eastern and western base of the Allegheny, by the waters of the Juniata and the Conemaugh, and to the New York state line, on the North Branch of the Susquehanna, and to the mouth of the Sinnemahoning, on the West Branch. They have further provided for the execution, in part, of the feeder from French creek to Conneaut lake, and for suitable investigations and operations in relation to the construction of a rail-way, with either locomotive or stationary engines, and in relation to a smooth road, with an easy graduation, for the purpose of passing the summit between the Juniata and the Conemaugh, and also for examinations in the channel, or along the valley of the Delaware, and for further examinations on the summit level of the West Branch of the Susquehanna. The commencement of actual operations on the Delaware, under certain restrictions, is also one of the objects of the bill.

The whole length of the line of canal, authorised by the bill, will be about 500 miles, a large portion of which, it is confidently believed, may be prepared and put under contract within the present year.

The committee believe, that after a careful examination, the practicability of the improvements in contemplation, is fully ascertained; and that a boat navigation can be constructed along the valley of the Susquehanna, to the state line, and also between the Delaware, and the Ohio and Lake Erie, with a portage of 41 miles upon the Juniata route, and a shorter portage upon the West Branch route. The committee, however, do not relinquish the

hope that further examinations will demonstrate the practicability of an uninterrupted water communication from the West Branch to Lake Erie.

All the works can be executed at a moderate expense. Such is the favourable nature of the ground in Pennsylvania, that the average cost per mile, including lockage, will not be much more than half of the cost of the canals of New York, with which they are destined to enter into competition for the trade between the east and the west. The committee will refer to the official reports of the commissioners. They were guided in their estimates by engineers distinguished for skill and experience, and maintain the opinion, not only as to the practicability, but that the average cost of improvements to the extent of five hundred miles, will not exceed ten thousand dollars per mile.

With the utmost confidence in the estimates, the committee will call the attention of the House to the policy, and they will say to the necessity, of further appropriations for the prosecution of the great works, sanctioned by the judgment of our predecessors, and approved by a large majority of the people of Pennsylvania.

In relation to internal improvement, the first object is to unfold the agricultural and mineral riches of the state, and its immense means of internal and foreign commerce. It was this consideration, which pressed itself upon the minds of former legislatures, and which led to the public patronage of roads, bridges, the Union canal, the Delaware and Chesapeake canal, and of many other useful works, and to the actual commencement of the Pennsylvania canal, with the public funds. The committee believe that our state has the capacity of becoming the most productive in the Union. In climate, in soil, in the means of creating water and steam power, in the facility of forming easy and cheap inter-communications, in salt, in iron, and other mineral riches, it is not surpassed; and in the abundance and quality of coal it is not equalled; and when to these are added the Delaware, and its noble sea-port on the east, the Susquehanna, with all its branches, in the centre, and Pittsburg on the west, enjoying, from the hands of nature, twenty thousand miles of boat navigation, and matchless facilities for manufactures; and when, with these, we combine Presque Isle, with the safest and finest harbor on lake Erie, they form a variety of circumstances, which distinguish Pennsylvania from every part of the globe.

A moral and industrious people, possessed of such natural advantages, and enjoying the blessings of freedom, only require the best means of interior communication, to call into useful activity all the elements of individual comfort and public prosperity.

In this view of the importance of easy and cheap conveyances, we have experience as a guide. In foreign countries, in many of our sister states, and also within our own limits, we may see the effects of a reduction in the cost of carriage. On the Schuylkill, and on the Lehigh, the improvements, though not yet completed, have turned a wilderness into a scene of industry and wealth. Pottsville, at the head of the navigation of the Schuylkill, doubled

its size and population within the last year. Mauch Chunk contains nearly two thousand souls, and is rapidly increasing; and both towns have been created by means of the improvements in the rivers. The farmers find an advantageous market, either on the line of canal, or in the sea port of our own state. Forty-seven thousand tons of coal were, during the past year, carried to Philadelphia. Commodities, of all kinds, purchased on the sea board, for the supply of the interior, are conveyed at a reduced cost, and in consequence of these improvements, a large portion of our state presents a picture of prosperity, which convinces every intelligent observer, that the resources of Pennsylvania can only be fully developed by an extension of similar improvements to all parts of the state.

The sanction and support which the legislature and people of New York are now giving to new canal projects, demonstrates their full conviction of the advantages to be expected. The people of the counties on the Mohawk river, are petitioning for another canal, to run parallel to that which is already constructed. An entire canal of sixty miles in length, from the Hudson to the eastern border of Pennsylvania, will be in operation in the ensuing spring, and before the lapse of another year will be extended to the Susquehanna. A canal of eighty miles, with inclined planes, and intended to connect the waters of New York with the Lehigh and its coal mines, will be finished in a short time. It is indeed notorious, that it is among the objects of New York, on the one side, and of Maryland and Virginia, on the other, to encounter serious obstacles, and a heavy expenditure, for the purpose of extracting a portion of our agricultural and mineral riches. It would be a preposterous policy in us, with our ample fiscal means, and with the certain prospect of productive tolls, to neglect the improvement of the heart of the state, and the full developement of all our internal resources, when prospective neighbours can discover the advantage of extracting wealth from our borders by similar improvements.

Another consideration which presents itself to the view of the committee, is the preservation of the transit trade between the east and the west. Previous to the year which has just elapsed, the intercourse of the west through New York, was more expensive than through our own state. Our situation is now changed. The Erie canal has connected the Hudson with Lake Erie, and in a short time the Ohio canal will connect the same waters with the extensive vale of the Mississippi and Ohio. One hundred and eighty-three miles of the Ohio canal will be finished early in the summer of next year, which will be an extension of the Erie canal through the heart of the state of Ohio.

The distance from New York to the town of Erie, by water conveyance, is not less than six hundred miles, and commodities which pay a heavy toll, are transported from one point to the other, at 112½ cents per hundred. The carriage from our commercial capital, to the same point, (a distance of only three hundred and sixty-seven miles,) is never less than from three and a half to

four dollars. The same difference in the cost of transportation is true in relation to any other point on lake Erie. It will be perceived that if from false economy we refuse to advance in our career of improvement, New York will, after the completion of the great canal, now constructing in the state of Ohio, furnish the whole of the west with merchandise, and receive its products in return. Our sagacious neighbor will have secured to herself the whole of the transit trade between the east and the west, which has heretofore passed through and enriched Pennsylvania. As the pack horse gave place to the waggon, the waggon will give place to the boat, and we must either create a highway upon which one horse will perform the labor of forty horses upon a turnpike, or we can no longer furnish the avenues by which trade and wealth will flow from one extremity of the state to the other.

The committee will ask the attention of the House to the interesting fact, that a few years ago, the trade of lake Erie required but two or three small sloops, and that during the last year, (the first year after the completion of the Erie canal,) six steam boats and nearly one hundred coasting vessels were employed upon the lake by the trade which exists between New York and different points on that inland sea. This fact enables us to form a satisfactory judgment as to the result of our situation, if we determine to remain stationary. Not only the trade of the growing states of the west will have been wrested from us, but the social and commercial connection between the eastern and western parts of our own state, will cease; the foundation of the system which holds the counties together will be shaken; there will exist no common interest; and though the map may not diminish in size, and the Representatives may annually meet and contend in the capitol, one part of the land of William Penn will be virtually disjoined from the other.

The committee will further remark, that upon the prosecution of the canal policy rests the prosperity of our commercial city, and the preservation and increase of the large revenues derived from that city; revenues which relieve the land of the farmer from state taxes.

All the money which flows into the public treasury from Philadelphia is but the secretion from a healthy and vigorous commerce. If the commerce of the city is fed and nourished by flourishing interior counties, it will grow and always replenish the coffers of the state. The auction duties of the city of New York amounted last year to \$233,401; an annual sum, which, at the market rate of interest, would be equal to a capital of five millions of dollars. Under a wise government, Philadelphia will soon be the exporting city of the whole commonwealth, and also the chief exporting city of the most populous and richest of the states of the west—emphatically styled rising empires: and whose exports, in 1825, amounted to twenty-three millions of dollars. This result would rapidly increase the auction duties, the bank dividends, and all the

other sources of revenue derived from Philadelphia, and which even now exceed the annual sum of \$300,000. But if the canal policy is relinquished, the picture will be reversed: the mineral wealth of the state will be, in a great degree, dormant: agriculture will languish; manufactures will want an enlivening impulse; a portion of the farmers, mechanics and laborers will emigrate; the merchant who searches the world for a market for the products of the field, the mine and the workshop, will seek a more advantageous theatre for his enterprise: he will find at New York better facilities for producing wealth, and the same benign laws for its protection; he will carry with him his capital, skill and industry, and also the arts and improvements to which capital is a stimulus: and as the riches of a city expand themselves over and fertilize the country in its immediate neighborhood, the decay of the city will be the decay of Montgomery and other adjoining counties; and the copious and perennial stream of riches which flows from the city into the public treasury, and relieves from taxation the farm and the workshop, will be diverted into other channels.

Another view, in relation to the policy of the measures contemplated by the bill, is, that the improvements cannot require oppressive taxation. They will pay for themselves, and, in a few years, furnish a revenue which may be applied to education and other useful objects. In the present bill, it is proposed to appropriate twelve hundred thousand dollars, which, if added to the sum appropriated by the last Legislature, will amount to one million five hundred thousand dollars; the interest of which will be about seventy-five thousand dollars a year. It is within the province of the committee of ways and means, to state what will be the probable amount of the revenue which will be produced by the various expedients adopted for the purpose of forming a canal fund. It is however believed that it will be satisfactorily shown that those expedients will be more than adequate to the payment of the interest, and the speedy redemption of the principal of the debt now proposed to be incurred, and, with the tolls which may reasonably be hereafter expected, will produce a sinking fund adequate to extinguish whatever debt may be incurred for the completion of all the improvements in contemplation.

In regard to the amount of tolls which will accrue from the canals, the committee conceive they may illustrate and sustain their position, by the experience not only of Europe, wherever canals are judiciously located, but also of our sister New York, who, with far inferior advantages, has demonstrated the profitability of canals, considered merely in relation to the tolls they produce. In the year which has just elapsed, (the first year since the completion of the canals,) the tolls amounted to seven hundred and seventy-one thousand seven hundred and eighty dollars; which, if the interest of the money be rated at five per cent. is equivalent to a capital of fifteen millions

four hundred and thirty-five thousand six hundred dollars. If from the tolls we deduct one hundred thousand dollars for superintendence and repairs, the balance will be equal to the interest on thirteen millions four hundred and thirty-five thousand six hundred dollars. The largest portion of this great income was derived from the carriage of the productions of the state of New York; and this interesting fact clearly proves, that the tonnage of a country, through which a canal flows, may pay the expense of its construction, even without the aid of coal, iron or other rich mineral treasures. The New York canal commissioners (whose predictions have hitherto been confirmed by experience) say, in their official report, that the Erie canal may give a revenue, in one year, of more than nine millions of dollars.

The committee are fully persuaded, that the present saving of the few millions of dollars proposed to be expended, (all of which will be spent in the purchase of our own materials, and in the employment of our own labor,) will involve the loss of a trade, which, before the lapse of many years, would annually enrich the state to an amount equal to the whole of the original cost. It is not necessary to indulge in conjecture, or to pourtray the scenes of wealth and grandeur which would be the result of the contemplated improvements; but it cannot be too often impressed upon the public mind, that the tolls on the New York canals, in the first year after their completion, amounted to 50 per cent. more than the market rate of interest on the capital expended, and that every intelligent man in that state now believes, that, in a few years, the canals will have paid for themselves, and afterwards be the means not only of relieving the people from taxation, but of promoting education, patronising science and advancing the general happiness.

It may not be irrelevant to state, that it is alleged by the United States' board of internal improvement, that, at the present time, three hundred and fifty thousand tons are considered as a fair estimate of exports made to New Orleans and to the Atlantic ports from the districts peculiarly interested in the completion of the Chesapeake and Ohio canal, which, like the Pennsylvania canal, it is proposed to extend to Pittsburgh, the manufacturing emporium of the west. To this tonnage must be added that of the return trade. Nearly the whole of this trade, it is confidently believed, would seek an Atlantic port if the chain of mountains separating the east from the west, were broken down by the improvements in contemplation. Some of the facts on which the committee found this opinion, are, the distance of New Orleans; the risks of the navigation; the climate, which is destructive to many of the products and dangerous to health and life; the want of commercial capital, which renders prices uncertain and always lower than in the great Atlantic cities; and the necessity of taking advantage of freshets, which presses large quantities of

products in the same market, at the same time, and produces a glut.

The foregoing estimate, as to tonnage, does not seem unreasonable, as it is stated, upon credible authority, that in one year twenty thousand tons of the products of the country were shipped by steam boats from Louisville ~~and~~ New Orleans, and that about five thousand flat boats, averaging nearly forty tons each, in the same year passed the falls of Ohio, laden with produce in search of a market. to

The greatness of the commercial emporium, and the superiority of the market on the Delaware, contrasted with the seaports on the Chesapeake, or any of the seaports of the south, will always attract the western trade into the Pennsylvania canals. This result cannot be prevented by New York, as our route will be shorter and less interrupted by ice. When besides this advantage we consider the superior productiveness of the country through which the Pennsylvania canals will flow; the fertile valleys of the Susquehanna, in their present cultivation, sending annually to market products to the amount of nearly four millions of dollars; the extent to which the manufacture of salt may be carried; the immense masses of coal; the beds of iron ore, the most precious of metals, and which would be converted into all its artificial forms; the new mineral wealth which will be discovered by means of the geological and mineralogical survey now contemplated; and when we further consider the numerous branch canals and auxiliary rail roads; which would soon be constructed, it will be perceived that the tonnage on the Pennsylvania route will be of vast magnitude, and greater than that which will ever pass upon any other route between the eastern and western waters. If then we assume that after the completion of the works, the total of the tonnage of the descending trade will be but two hundred thousand tons, which is but little more than the present tonnage on the Susquehanna; and if we compute the tolls at an average sum of one cent per ton a mile, for a mean distance of three hundred miles, it will give an annual sum of \$600,000

From which, if we make the ample deduction of
20 per cent, for repairs and superintendence, say 120,000

There will be an annual revenue of \$480,000

For the descending trade alone, even without any further increase of our trade, wealth and population. This sum will pay the interest on ten millions of dollars. In the above estimate, the profits which must arise on the whole of the return trade, or on all the boats which will pass from east to west, are not at all taken into account. To form an opinion of the probable extent of this return trade, we need only refer to the fact, that it has been ascertained that more than one million of dollars have been paid for many years in succession, for carrying commodities from the Atlantic ports to the western waters.

The committee do not conceive it necessary to bring into view all the facts which have been ascertained in relation to the trade that passes on our roads, and on our noble rivers and their branches, all of which would feel the vivifying influence of the contemplated improvements. It is believed that the people and their representatives are fully convinced, that (even if the state were to derive no advantage from the employment and the reward of the labour and skill which will be necessary for the construction of the improvements; or from the wealth which will be created by the increased value of the coal, the iron, the salt, and other substances, in the districts through which the canals will pass,) the prosecution of the great works would be expedient, from the certainty of their future profitableness, considered as more sources of revenue to the government.

The next proposition which it is the purpose of the committee to sustain, is that the contemplated improvements will enliven the great roads of the state, and render productive the vast amount of stock in turnpikes and bridges, (which has been computed at ten millions of dollars,) and of which the state owns more than two millions of dollars.

A full development of our resources will give fertility and population to the barren districts, and spread agriculture, manufactures and commerce over the whole state, embracing twenty nine millions of acres. One of the results of this general prosperity will be an active intercourse between the various parts of our commonwealth, and a vast increase upon the roads and bridges of those vehicles which pay toll without wearing out the road. A large share of the profits may then be divided among the stockholders, instead of being absorbed by the expense of repairs. The experience of others may here be a safe guide. In New York many of the tavernkeepers on turnpike roads, and of the proprietors of stock, remonstrated against the canal as injurious to their interests, but time has dissipated their fears. Heavy commodities (which before the construction of canals were carried upon roads,) are now carried by water, and multitudes of passengers travel in boats; but the travelling has also increased upon the roads, and they now exhibit a more flourishing aspect than ever.

Similar effects have been produced upon the roads in the vicinity of the improved water conveyances in our own state. The committee are informed that the tolls received upon the turnpike which connects Mauch Chunk with the Susquehanna, were last year nearly double the usual amount; and it is notorious to all observant travellers that all the roads which lead either from the Susquehanna or from Philadelphia, to Mount Carbon or Mauch Chunk, now exhibit an enlivened aspect.

It may not be improper to refer to the effects which canals have had upon the roads of England. That country, of which the territory is not much greater than that of Pennsylvania, has an extent of inland navigation of about 3000 miles; and Phillips, an eminent writer on inland navigation, remarks, "the roads in England are continually full of coaches, chaises, wagons, carts and horse-

men, going to and from the different villages, towns and capital cities."

The committee are fully persuaded that when the Pennsylvania improvements and their auxiliary branches are completed, the owners of turnpike and bridge stock will be remunerated for their public spirit, and the state will have an additional monied resource in its large amount of stock in turnpikes and bridges.

In presenting general considerations in favor of the canal policy, the committee may be allowed to advert to the facilities it will hereafter afford for the construction of rail-ways. Many intelligent persons are of opinion that from the immense field for productive industry and active labor presented by Pennsylvania, and from the magnitude of the future trade between the sea port of our state and the great and growing country of the west, rail-roads will hereafter be constructed parallel to our leading canals. The experience of Great Britain demonstrates that rail-roads will be at least expedient in particular districts of Pennsylvania, where canals are not practicable, and that they will form good collateral branches of communication to canals.

Besides many that are projected, the construction of one from Columbia to Philadelphia, and of another from Danville to Mount Carbon, and some others of less extent, are already authorised by law. It is also believed that the canals which are advancing from the east and from the west to the base of the Allegheny, will hereafter be connected by means of this useful improvement. It is then the part of wisdom to inquire how far canals will assist in the accomplishment of this great object.

Iron is the chief and most expensive material in the construction of rail-ways. In the western and middle parts of our state, the improvements in contemplation will bring together the iron ore and coal fit for coaking and smelting, by which the manufactured metal may be increased to any extent. As regards the facility of making iron in our eastern counties, the committee will quote the language of William M'Clure, an experienced traveller of high reputation for science. It is found in a late number of Silliman's Journal of Sciences. "The beds or strata of coal," says Mr. M'Clure, "being inclined at a pretty high angle from the horizon, may all be wrought by subterranean canals. The hills which at present, by the carriage on the surface, are the cause of much expense, may, by canals following the beds, be worked every where above the water level, at little or no expense, and at the same time the whole field will be effectually drained; an advantage that few or no coal fields in Europe enjoy, and from which the Duke of Bridgewater has derived great profits. This immense formation of anthracite will render this state the most productive in the Union; for as soon as they can contrive a good mode of smelting iron ore with the anthracite, this will become one of the greatest iron countries on the globe, because, having so much fine magnetic iron ore, and the natural state of the combustible rendering it capable of producing a very strong heat without

any preparation of coaking or adulterating with any mixture injurious to the making of iron.—Those circumstances constitute so many advantages as are scarcely to be met with in any locality as yet known."

demand It was ascertained in England, by the agent of the Pennsylvania society for the promotion of internal improvement, that two hundred tons of iron castings will be required for each mile of double rail-way, on the best construction, which, for an extent of 500 miles, would amount to 100,000 tons. Such a ~~market~~ will always raise the market price. Even in England, where 400,000 tons are annually manufactured, the efforts to make rail roads two years ago, doubled the price of iron. Let us assume that the price of iron castings would be reduced twenty dollars a ton, in consequence of the vast increase of iron works, which will be the natural result of the facility which canals give in making iron, and in finding a market for it when made. The saving then on one hundred thousand tons would be two millions of dollars. Let us also assume that in the construction of rail ways, the mean distance of the transportation of the iron from the furnace to the place where it is wanted, would be 75 miles; the difference then between land and canal conveyance, would not, at any time, be much less than one million of dollars. Under these views, which are believed to be correct, the construction of rail ways would be facilitated by means of canals, and the expense of making five hundred miles, in different parts of the state, would be reduced about three millions of dollars.

The committee are aware of the opinion entertained by many respectable persons, that the great amount of lockage on the canals in Pennsylvania, will prevent their coming into successful competition with New York for the trade of the west. This opinion, it is believed, is founded on error. That Pennsylvania, whether by the West Branch or Juniata route, has a great advantage as respects distance is conceded. Cheapness of construction, the result of progressive science, and a climate which will open the navigation earlier, and keep it open later, are other signal advantages; and the committee will refer to the scientific report of the board of engineers of the United States for internal improvement, (communicated during the present session by the President to congress,) which contains a demonstration that the Pennsylvania canal, if constructed with proper dimensions of the cross section, will compensate by the less resistance the boats will encounter on the levels, for the delay caused by so great an amount of lockage.

"The cross section of a canal, (say the United States engineers,) ought to be, with moderate velocities, 6.46 times the cross section of the boat, and the water line $4\frac{1}{2}$ times the breadth of the boat." It is clearly shown, from actual experiment, that on a canal with all our lockage, if the width is 48 and the depth 5 feet, the same tonnage may be transported in less time, with less power, and therefore with less cost, than on a canal of the

same length and with the same proportion of lockage, as exists on the New York canal, but having (as that canal has) a depth of only four feet and a width of forty feet. Under these views, the committee (confident that the commissioners will profit by the advantage which experience in canalling gives us) are persuaded that the improvements in contemplation cannot fail in preserving the rich transit trade between the east and the west for the benefit of Pennsylvania.

The committee consider that our statutes already have recognised the policy of, and pledged the faith of the state for the construction of the easiest and cheapest communications from the Swatara, through Lancaster and Chester counties, to the Delaware—from Harrisburg to the Potomac, through Cumberland and Franklin counties—from the Juniata to the Youghiogheny—and from Pittsburg to lake Erie. In the opinion of the committee, the best communication should also be made from Carpenter's Point, where the Delaware and Hudson canal intersects our river, to Easton, and from thence to Philadelphia. This subject has been referred by a special resolution, and the canal commissioners have since recommended examinations, with a view to the same improvement. The committee have therefore provided for surveys and examinations upon the Delaware, and have further provided for commencing active operations to a limited extent, if an uninterrupted navigable communication should be found of easy and cheap construction. It is the policy of Pennsylvania to preserve the trade of the Delaware within her own limits, and to counteract the efforts of New York to divert it into new channels. The completion of this work will open a direct water communication with the Hudson, and with the interior of New York and the western part of Vermont, and before the lapse of many months, the communication will be extended by improvements, now in progress, to the upper waters of the Susquehanna, and to the Erie canal. Taking into view not only the agricultural products of the Delaware, but the extensive coal mines on its branches, the future profitableness of this improvement is too obvious to need illustration.

Every object embraced within the bill annexed to this report, (with a single exception,) has the unanimous sanction of a board of commissioners, selected from the various sections of the commonwealth. The bill does indeed assume, that with a becoming energy, a greater extent of the line may be contracted for within the present year, than was in the contemplation of the commissioners. This, however, must be left entirely to the discretion and responsibility of the board. Neither the government nor the people can enjoy all the advantages, until the works are fully completed, and our position as respects New York, creates a necessity of extraordinary exertion.

The part of the work which has not, at present, the approbation of the board, consists in the extension of the canal from the Bald Eagle to the mouth of the Sinnemahoning, an extent of about forty miles. Some years must elapse before active operations

can be commenced upon this part of the line; and if it should then pass through a wilderness, it will accommodate many millions of acres capable of cultivation, and abounding with rich minerals. Under the genius of freedom, the deserts of our country are made to blossom. Thirty years ago the state of Ohio, (now animated by a million of human beings,) was a wilderness; and if the land to be benefitted by this extension of the canal, is not now inhabited, the improvement will bring people, and infuse the ~~seed~~ ^{seed} of industry and commerce;—it will create buildings and settlements, and the wilderness will be sown and become a fruitful place. If, in some parts of the state, the improvements are the effects of population and wealth, here let them be the producers of population and wealth.

soul

The committee will conclude by imploring the House to maintain the interest and honor of the state, by a vigorous prosecution of the canal system commenced by the last Legislature. The most strenuous opposers of internal improvement must admit that there has been no precipitance of judgment, and that we have now all the information which is necessary to a wise and safe legislation. The subject has been fully considered by the legislature and the people. The guarantee by the state of an interest to the subscribers of the Union canal company, awakened and for many years has fixed public attention upon artificial canals. For ten successive years, bills relating to the construction of a state canal, for the purpose of connecting the eastern and western waters, have been introduced and argued in the House of Representatives. Three years have now elapsed since the first board of canal commissioners was created, and the examinations of Messrs. Holgate, Clarke and Treziulney, demonstrated the practicability of canals at least as far as the base of the Allegheny mountains. The examinations under the present board of canal commissioners, aided by practical engineers of long experience and of the highest qualifications, have removed doubts from the minds of the most sceptical.

To all this it may be added that the Legislature of last year, after a solemn consideration, began the works, and the committee believe that nothing but a conviction of their impracticability or our incapacity to provide the means for their execution, can now justify a relinquishment or a delay, and the consequent suppression of the active spirit of improvement which distinguishes the state. We may now safely appeal to the magnanimity even of those who last year entertained doubts as to the expediency of the measure. The well earned reputation of Pennsylvania for liberality, patriotism and political wisdom, her pride as the country of Penn and Franklin, and of Fulton, who early saw the path of prosperity and urged the policy of constructing canals through the state which gave him birth; indeed all the high and animating impulses of the human heart press her now forward in the career of internal improvement. Are we from a perverted economy, and regardless of the march of events and the change of circumstances, to go backwards while neighbors and rivals are advancing

and calling their dormant riches into useful activity, and are about to encompass our state with improvements which will afford facilities for transporting the products on our borders to their own commercial capitals? If such is our determination, we shall soon be deprived of a large share of our population and of our active capital. We shall pursue a policy which will cause us to be trodden down, while a wiser rule would lift us to nobler heights, and support the rank to which, by the bounty of Heaven, we are entitled among the members of our illustrious republic. We shall betray our high trust and fail in performing the duty due to our fathers, to ourselves and to posterity. The act providing for the commencement of the Pennsylvania canal will stand upon our statutes as a monument of our shame, and as in mockery of the wishes and interests of the people, and we shall prove ourselves unworthy occupiers of the seats once possessed by the patriots and statesmen who founded and reared our commonwealth.

An act to provide for the further extension of the Pennsylvania canal.

Section 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same,* That the board of canal commissioners are hereby authorised and required in behalf of this state, as speedily as may be, to locate and contract for making canals and locks, and other works necessary thereto, from the eastern section of the Pennsylvania canal, to a point at or near Frankstown, on the Juniata; and to a point at or near the New York state line, on the North Branch of the Susquehanna; and also to a point at or near the mouth of the Sinnemahoning, on the West Branch; and further to extend the western section of the Pennsylvania canal, to a point at or near Johnstown, on the Conemaugh: *Provided*, that before contracting for any other parts of the aforesaid routes, they shall previously contract for such parts as will connect the eastern section with a point at or near Lewistown, on the Juniata; and with a point at or near the Muncy ripples, on the West Branch; and with a point at or near the mouth of Fishing creek, on the North Branch; and with a point at or near Blairsville, on the Conemaugh.

Section 2. *And be it further enacted by the authority aforesaid,* That the sum of one million of dollars be and the same is hereby appropriated, to be paid by the state treasurer, in such sums as shall be required for the execution of the work, which sums shall, from time to time, be paid into the hands of the acting canal commissioner or commissioners, by direction of a majority of the board, and by warrant of the Governor, subject to the provisions

of the 5th section of the act, entitled "An act to provide for the commencement of a canal to be constructed at the expense of the state, and to be styled the Pennsylvania canal."

Section 3. *And be it further enacted by the authority aforesaid,* That the board of canal commissioners are authorised and required to commence operations on the feeder from French creek to the summit level at Conneaut lake, and to contract for so much as may be adapted to either of the routes in contemplation, for the purpose of connecting the Pennsylvania canal with lake Erie, and the further sum of one hundred thousand dollars is hereby appropriated to carry into effect the provisions of this section, to be paid in like manner as is prescribed in the 2nd section of this act. And the said commissioners shall cause an examination to be made from the mouth of French creek, by way of Waterford, to the bay of Presque Isle; and from Conneaut lake to lake Erie; and also from Pittsburg, by way of Beaver and Shenango, to Conneaut lake.

Section 4. *And be it further enacted by the authority aforesaid,* That it shall be the duty of the board of canal commissioners to cause suitable examinations to be made in relation to the construction of a smooth road, with an easy graduation, and also in relation to the construction of a rail way, with either locomotive or stationary engines, for the purpose of passing the summit between the Juniata and the Conemaugh; and they shall also cause further examinations to be made, with a view of ascertaining the practicability and cost of an entire waetr communication between the West branch of the Susquehanna and a branch of the Allegheny.

Section 5. *And be it further enacted by the authority aforesaid,* That it shall be the duty of the board of canal commissioners to cause examinations, surveys and estimates to be made in the natural channel, or along the valley of the Delaware, from Philadelphia to Carpenter's point, with the view of ascertaining the most eligible mode of effecting a navigable communication, and the said commissioners shall report in like manner as is directed by law in relation to other canal routes. *And whereas,* the state of New York has adopted effectual measures for securing within a short time the completion of two navigable canals from the Delaware to the Hudson, and it is of high importance to Pennsylvania that the trade of the Delaware should be retained within her limits.

Therefore,

Section 6. *Be it further enacted by the authority aforesaid,* That if after suitable examinations by competent engineers, it should appear to the board of canal commissioners, that the average cost of constructing an uninterrupted navigable communication between a point at or near to Carpenter's point and Philadelphia will not be more than ten thousand dollars per mile, and that it can be constructed in the valley and fed by streams within the state; then

with the consent of the Governor, a portion of said navigable communication may be located and contracted for, and the further sum of one hundred thousand dollars is hereby appropriated for the accomplishment of the aforesaid object, to be paid in like manner as is provided in the tenth section of this act.

Section 7. *And be it further enacted by the authority aforesaid,* That if any person shall consider himself aggrieved, by reason of the canal passing through the lands of which he is owner, or by interfering in any manner with his rights of property, he may, at the completion of the work thereupon, or within one year thereafter, petition the court of quarter sessions of the county in which the damage has been committed, and the said court shall appoint five reputable citizens within the judicial district of which the said county is a part, and not residing in, or inhabitants of the said county, whose duty it shall be, after being severally sworn or affirmed, to view the premises, and, taking into consideration the advantages of said canal to the petitioner; report such damage, if any, as they, or any three of them shall think the owner has sustained by reason of said canal. And in case the said viewers are of opinion that the petitioner has received no damage, or that the advantages derived from the canal are sufficient compensation to the petitioner for any injury sustained by him, they will also report the same to the said court; for all which services the said viewers shall each receive two dollars for every day employed, and three cents for each mile they shall necessarily travel, in the performance of such service; the costs of such proceedings wherever the viewers report no damage, shall be paid by the petitioner. And upon the approbation of the said court to the report of the said viewers, and the certificate of the prothonotary to the amount, the acting canal commissioner shall, and he is hereby required to pay to the said petitioner, the full amount of damages and costs assessed as aforesaid.

Provided, That the petitioner shall be required to give reasonable notice to the nearest acting canal commissioner, of the time and place, when and where the said viewers are to meet for the purpose aforesaid. *And provided also,* That the right to except to the report of said viewers by either party, shall be, and remain the same, as is extended to reports of viewers, for road damages under the existing laws of this commonwealth.

Section 8. *And be it further enacted by the authority aforesaid,* That whenever, in the opinion of the canal commissioners, any water may be spared from any part of the Pennsylvania canal, without injury to the navigation or safety thereof, in such case they are authorised to lease the said water to such person or persons as may be willing to give the highest annual rent; reserving, however, in the lease to be given, the right to limit, control or wholly resume the said waters, and all the rights granted by every such lease, whenever, in the opinion of the said commissioners, or of the Le-

gislature, the safety of such canals or works, or the necessary supply of water for the navigation of any canal which now is, or hereafter may be, constructed by the authority of the state, under such limitation, control or resumption necessary, and whenever any lease for waters as aforesaid, shall be executed, the rent reserved therein shall be required to be paid over annually to the commissioners of the canal fund; and if, at any time, such rent shall remain unpaid for one year after the same shall become due, in that case the said lease shall be forfeited to the state; but in all cases where such waters may be spared, as aforesaid, it shall be the duty of said commissioners to cause written notice to be put up in public places, near the said waters, at least thirty days previous to the execution of any lease, describing the waters which may be so spared, and stating the time when, and the place where, proposals may be received for the same: *Provided*, That in any case where the waters, or the use thereof granted or leased by virtue of this act, are resumed as aforesaid, no damage or compensation shall be paid or allowed to any person or persons, who may have made any improvement or erections in consequence of any such grant or lease.

Section 9. *And be it further enacted by the authority aforesaid*, That the provisions, so far as they are applicable, contained in the act, entitled "An act to provide for the commencement of a canal to be constructed at the expense of the state, and to be styled the Pennsylvania canal," shall be in force so far as respects this act; and so much of the laws relating to the 'Pennsylvania canal,' as is inconsistent with this act, is hereby repealed.

encl